FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

OMCO Cast Metals
900 North Main Street
Winchester, Indiana 47394

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 135-14182-00007	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: August 12, 2002 Expiration Date: August 12, 2007

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary gray and ductile iron casting foundry.

Authorized Individual:	Chuck Harwell, Vice President
Source Address:	900 North Main Street, Winchester, Indiana
Mailing Address:	P.O. Box 462, Winchester, Indiana
General Source Phone Number:	317 - 584 - 4000
SIC Code:	3321 and 3322
County Location:	Randolph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) Two (2) Brown-Boveri electric induction furnaces, identified as North and South, each with a maximum capacity of 5.0 tons of metal per hour, exhausting to Stacks A and B.

(b) Scrap and charge handling process, including a magnetic crane, uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour.

(c) One (1) natural gas-fired scrap preheat furnace, controlled by the 65,000 cfm baghouse, exhausting to Stack C, rated at 12 million British thermal units per hour, capacity: 5.0 tons of metal per hour.

(d) One (1) mold making process, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, identified as Baghouse 1, exhausting to Stack G, capacity: 5.0 tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, identified as Baghouse 2, exhausting to Stack H, capacity: 5.0 tons of metal per hour.

(3) One (1) squeezer molding machine, controlled by a pulsed baghouse, identified as Baghouse 3, exhausting to Stack I, capacity: 5.0 tons of metal per hour.

(e) One (1) core forming line, consisting of beta system, shell core system and oil sand bench core making, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting internally

(2) one (1) core oven, uncontrolled, exhausting to Stack L

(3) one (1) pepset line, uncontrolled and exhausting internally

(f) One (1) sand handling system, consisting of a muller and other necessary equipment, controlled by the 35,000 cfm baghouse, exhausting to Stack F, capacity: 30 tons of sand per hour. The sand handling system also includes one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K.

(g) One (1) sand reclaimer, identified as sand reclaimer, controlled by the 2,750 cfm baghouse, exhausting to Stack E, capacity: 7.5 tons of sand per hour.

(h) One (1) inoculation/magnesium treatment process, consisting of a ladle equipped with an exhaust hood, capacity: 5.0 tons of metal per hour.

(i) One (1) pouring/casting process, consisting of two pouring ladles, uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour and 30 tons of sand per hour.

(j) One (1) castings cooling process, uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour.

(k) One (1) castings shakeout process, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) shaker, identified as East Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(2) One (1) shaker, identified as West Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(3) One (1) shaker conveyor, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(l) One (1) cleaning and finishing operation, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) snag grinding operation, consisting of four (4) snag grinders, controlled by the 5,600 cfm baghouse, exhausting to Stack D.

(2) One (1) Wheelabrator shot blasting unit, identified as North Wheelabrator, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(3) One (1) Wheelabrator shot blasting unit, identified as South Wheelabrator, controlled by the 2,750 cfm baghouse, exhausting to Stack E.

(4) One (1) cut-off saw, controlled by the 2,750 cfm baghouse, exhausting to Stack E.

(5) One (1) cut-off saw, controlled by the 5,600 cfm baghouse, exhausting to Stack D.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) two (2) annealing ovens (four burner type), rated at 3.4 million British thermal units per hour, each.

(2) one (1) annealing oven (five burner type), rated at 2 million British thermal units per hour.

(b) Equipment powered by internal combustion engines:

one (1) emergency generator, firing diesel fuel, rated at 250 horsepower.

(c) Paved and unpaved roads and parking lots with public access.

(d) A gasoline fuel transfer and dispensing operation.

(e) A petroleum fuel dispensing facility.

(f) Grinding operations.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM , the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking

and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in

letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs), including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as

defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,

Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Failure to notify IDEM, OAQ, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those

emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

(c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the

applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or

326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented upon issuance of this permit. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.13 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certifi-

cation statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal"

parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be

submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) Two (2) Brown-Boveri electric induction furnaces, identified as North and South, each with a maximum capacity of 5.0 tons of metal per hour, exhausting to Stacks A and B.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Electric Induction Furnaces Operation

No more than one (1) of the two (2) electric induction furnaces shall be used for the purposes of melting metal at any time.

D.1.2 Metal Throughput Limit [326 IAC 2-8-4]

The total metal throughput to the two (2) electric induction furnaces shall be less than 12,924 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from each electric induction furnace shall not exceed 12.1 pounds per hour when operating at a process weight rate of 5.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.4 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

The PM_{10} emission rate from either of the two (2) electric induction furnaces shall not exceed 0.86 pounds per ton of metal melted, equivalent to 5.56 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.1.5 Particulate Matter (PM) [326 IAC 2-2]

The PM emission rate from either of the two (2) electric induction furnaces shall not exceed 0.90 pounds per ton of metal melted, equivalent to 5.82 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.1.6 Nonapplicability

(a) Condition D.1.2 of F135-5454, the requirement to limit the total annual metal throughput to 20,240 tons per year has not been included in the renewal. This requirement is no longer applicable because the source will now limit the total annual metal throughput to 12,924 tons per year.

(b) Condition D.1.5 of F135-5454, the requirement to have a Preventive Maintenance Plan for the electric induction furnaces, has not been included in this renewal. The electric induction furnaces do not use a control device and their actual emissions are less than 25 tons per year.

Thus, Conditions D.1.1 and D.1.5 of F 135-5454 are hereby rescinded.

Compliance Determination Requirements

There are no specific Compliance Determination Requirements applicable to these emission units.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.7 Record Keeping Requirements

(a) To document compliance with Condition D.1.2, D.1.4 and D.1.5, the Permittee shall maintain records of the total monthly amount of metal melted in the two (2) electric induction furnaces.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.8 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(b) Scrap and charge handling process, including a magnetic crane, uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour.

(c) One (1) natural gas-fired scrap preheat furnace, controlled by the 65,000 cfm baghouse, exhausting to Stack C, rated at 12 million British thermal units per hour, capacity: 5.0 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the scrap and charge handling process shall not exceed 12.1 pounds per hour when operating at a process weight rate of 5.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.2.2 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

The PM_{10} emission rate from the scrap and charge handling process shall not exceed 0.36 pounds per ton of metal processed, equivalent to 2.33 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.2.3 Particulate Matter (PM) [326 IAC 2-2]

The PM emission rate from the scrap and charge handling process shall not exceed 0.6 pounds per ton of metal processed, equivalent to 3.88 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.2.4 Nonapplicability

Condition D.3.4 of F 135-5454, the requirement to have a Preventive Maintenance Plan for the scrap and charge handling process, has not been included in this renewal. The scrap and charge handling process does not use a control device and the actual emissions are less than 25 tons per year. Thus, Condition D.3.4 of F 135-5454 is hereby rescinded.

Compliance Determination Requirements

There are no specific Compliance Determination Requirements applicable to these emission units.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(d) One (1) mold making process, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, identified as Baghouse 1, exhausting to Stack G, capacity: 5.0 tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, identified as Baghouse 2, exhausting to Stack H, capacity: 5.0 tons of metal per hour.

(3) One (1) squeezer molding machine, controlled by a pulsed baghouse, identified as Baghouse 3, exhausting to Stack I, capacity: 5.0 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the mold making process shall not exceed 12.1 pounds per hour when operating at a process weight rate of 5.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.2 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

The PM_{10} emission rate from the mold making process after control shall not exceed 1.1 pounds per ton of metal processed, equivalent to 7.11 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.3.3 Particulate Matter (PM) [326 IAC 2-2]

The PM emission rate from the mold making process after control shall not exceed 1.1 pounds per ton of metal processed, equivalent to 7.11 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.3.4 Nonapplicability

Conditions D.7.3(c) and D.7.4(c) of F 135-5454, the requirements to limit PM and PM_{10} emissions from mold making to 0.011 pounds per ton of metal processed, have not been included in this renewal. The limits have been changed to 1.1 pounds per ton of metal processed, and are included as Conditions D.3.2 and D.3.3 of this permit. Thus, Conditions D.7.3(c) and D.7.4(c) of F 135-5454 are hereby rescinded.

D.3.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

There are no specific Compliance Determination Requirements applicable to these emission units.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(e) One (1) core forming line, consisting of beta system, shell core system and oil sand bench core making, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting internally

(2) one (1) core oven, uncontrolled, exhausting to Stack L

(3) one (1) pepset line, uncontrolled and exhausting internally

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the core making process shall not exceed 12.1 pounds per hour when operating at a process weight rate of 5.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.4.2 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

The PM_{10} emission rate from the core making process after controls shall not exceed 1.1 pounds per ton of metal processed, equivalent to 7.11 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.4.3 Particulate Matter (PM) [326 IAC 2-2]

The PM emission rate from the core making process after controls shall not exceed 1.1 pounds per ton of metal processed, equivalent to 7.11 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.4.4 Nonapplicability

(a) Conditions D.8.4, D.8.5, D.8.6, and D.8.7 of F 135-5454, the Compliance Monitoring Requirements, the resulting Record Keeping and Reporting Requirements, and the requirements to have a Preventive Maintenance Plan for the core making process, have not been included in this renewal. While the core making process does use some control devices, the uncontrolled emissions from the core making process are less than the allowable emission rate prescribed by 326 IAC 6-3-2. Thus, Conditions D.8.4, D.8.5, D.8.6, and D.8.7 of F 135-5454 are hereby rescinded.

(b) Conditions D.8.2 and D.8.3 of F 135-5454, the requirements to limit PM and PM_{10} emissions from core making to 0.011 pounds per ton of metal processed, have not been included in this renewal. The limits have been changed to 1.1 pounds per ton of metal processed, and are included as Conditions D.4.2 and D.4.3 of this permit. Thus, Conditions D.8.2 and D.8.3 of F 135-5454 are hereby rescinded.

SECTION D.5 FACILITY CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(f) One (1) sand handling system, consisting of a muller and other necessary equipment, controlled by the 35,000 cfm baghouse, exhausting to Stack F, capacity: 30 tons of sand per hour. The sand handling system also includes one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.5.1 Sand Throughput Limit [326 IAC 2-8-4]

The total sand throughput to the sand handling process shall be less than 144,014 tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.5.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the sand handling process shall not exceed 40.0 pounds per hour when operating at a process weight rate of 30 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.5.3 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

The PM_{10} emission rate from the sand handling process after controls shall not exceed 0.3427 pounds per ton of sand handled, equivalent to 24.7 tons of PM_{10} per year at the throughput limit of 144,014 tons of sand delivered to the sand handling process per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.5.4 Particulate Matter (PM) [326 IAC 2-2]

The PM emission rate from the sand handling process after controls shall not exceed 0.2502 pounds per ton of sand handled, equivalent to 18.0 tons of PM per year at the throughput limit of 144,014 tons of sand delivered to the sand handling process per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.5.5 Nonapplicability

Conditions D.7.3(a) and D.7.4(a) of F 135-5454, which limited PM and PM_{10} emissions from the sand handling operations to 0.0065 and 0.0054 pounds per ton of sand handled, respectively, have not been included in this renewal. The PM and PM_{10} limits were changed to 0.2502 and 0.3427 pounds per ton, respectively, and are included in Conditions D.5.3 and D.5.4 of this permit. Thus, Conditions D.7.3(a) and D.7.4(a) of F 135-5454 are hereby rescinded.

D.5.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.5.7 Particulate Matter (PM)

In order to comply with Conditions D.5.2, D.5.3 and D.5.4, the baghouse for PM control shall be in operation and control emissions from the sand handling process at all times that sand handling process is in operation.

D.5.8 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.5.2, D.5.3 and D.5.4, the Permittee shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.5.9 Visible Emissions Notations

(a) Visible emission notations of the sand handling process stack exhaust (Stack F) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.5.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the sand handling process, at least once per shift when the sand handling process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.5.11 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the sand handling process when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.5.12 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.5.13 Record Keeping Requirements

(a) To document compliance with Condition D.5.1, the Permittee shall maintain records of the total monthly amount of sand delivered to the sand handling system.

(b) To document compliance with Condition D.5.9, the Permittee shall maintain records of once per shift visible emission notations of the sand handling process stack exhaust (Stack F).

(c) To document compliance with Condition D.5.10, the Permittee shall maintain the following:

(1) Once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.5.11, the Permittee shall maintain records of the results of the inspections required under Condition D.5.11 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.5.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the

end of the quarter being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.6 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(g) One (1) sand reclaimer, identified as sand reclaimer, controlled by the 2,750 cfm baghouse, exhausting to Stack E, capacity: 7.5 tons of sand per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.6.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the one (1) sand reclaimer shall not exceed 15.8 pounds per hour when operating at a process weight rate of 7.5 tons per hour.

This limitation is based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.6.2 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

The PM_{10} emission rate from the sand reclaimer after control shall not exceed 0.3427 pounds per ton of sand processed, equivalent to 11.3 tons of PM_{10} per year at the maximum throughput of 65,700 tons of sand per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.6.3 Particulate Matter (PM) [326 IAC 2-2]

The PM emission rate from the sand reclaimer after control shall not exceed 0.2502 pounds per ton of sand processed, equivalent to 8.22 tons of PM per year at the maximum throughput of 65,700 tons of sand per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.6.4 Nonapplicability

Conditions D.10.2 and D.10.3 of F 135-5454, which limited PM and PM_{10} emissions from the sand reclaimer to 1.5 pounds per hour, have not been included in this renewal. The PM and PM_{10} limits were changed to 0.2502 and 0.3427 pounds per ton, respectively, and are included in Conditions D.6.2 and D.6.3 of this permit. Thus, Conditions D.10.2 and D.10.3 of F 135-5454 are hereby rescinded.

D.6.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.6.6 Particulate Matter (PM)

In order to comply with Conditions D.6.1, D.6.2 and D.6.3, the baghouse for PM control shall be in operation at all times when the one (1) sand reclaimer is in operation.

D.6.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.6.1, D.6.2, and D.6.3, the Permittee shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.6.8 Visible Emissions Notations

(a) Visible emission notations of the sand reclaimer exhaust (Stack E) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.6.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the sand reclaimer, at least once per shift when the sand reclaimer is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 3.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.6.10 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the sand reclaimer when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.6.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.6.12 Record Keeping Requirements

(a) To document compliance with Condition D.6.6, the Permittee shall maintain records of visible emission notations of the sand reclaimer stack exhaust (Stack E).

(b) To document compliance with Condition D.6.7, the Permittee shall maintain the following:

(1) Once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(2) Documentation of the dates vents are redirected.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(h) One (1) inoculation/magnesium treatment process, consisting of a ladle equipped with an exhaust hood, capacity: 5.0 tons of metal per hour.

(i) One (1) pouring/casting process, consisting of two pouring ladles, uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour and 30 tons of sand per hour.

(j) One (1) castings cooling process, uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.7.1 Particulate Matter (PM) [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the inoculation/magnesium treatment process, and the castings cooling process shall each not exceed 12.1 pounds per hour when operating at a process weight rate of 5.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the pouring/casting process shall not exceed 41.3 pounds per hour when operating at a process weight rate of 35.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.7.2 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

(a) The PM_{10} emission rate from the inoculation/magnesium treatment process after controls shall not exceed 1.8 pounds per ton of metal processed, equivalent to 11.6 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

(b) The PM_{10} emission rate from the pouring and cooling processes after controls shall not exceed a total of 2.06 pounds per ton of metal processed, equivalent to 13.3 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326

IAC 2-7 and 326 IAC 2-2 are not applicable.

D.7.3 Particulate Matter (PM) [326 IAC 2-2]

(a) The PM emission rate from the inoculation/magnesium treatment process after controls shall not exceed 1.8 pounds per ton of metal processed, equivalent to 11.6 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

(b) The PM emission rate from the pouring and cooling processes after controls shall not exceed a total of 4.2 pounds per ton of metal processed, equivalent to 27.1 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.7.4 Nonapplicability

(a) Conditions D.4.2, D.4.3, D.9.2 and D.9.3 of F 135-5454, the requirements which separately limit PM and PM_{10} emissions from the inoculation process and the magnesium treatment process, has not been included in the renewal. These requirements are no longer applicable because single limits for both processes have been calculated. These limits are included in Conditions D.7.2 and D.7.3 of this permit.

(b) Conditions D.4.4, D.5.4, D.6.4 and D.9.4 of F 135-5454, the requirements to have a Preventive Maintenance Plan for the pouring/casting process, the castings cooling process, and the inoculation/magnesium treatment processes, have not been included in this renewal. Each process does not use a control device and the actual emissions are less than 25 tons per year.

(c) Condition D.5.2 of F 135-5454, the requirement to limit PM_{10} emissions from the pouring/ casting process to 2.8 pounds per ton of metal processed, has not been included in this renewal. The proper limit is 0.66 pounds per ton of metal processed, and is included as Condition D.7.2(b) of this permit.

Thus, Conditions D.4.2, D.4.3, D.4.4, D.5.2, D.5.4, D.6.4, D.9.2, D.9.3, and D.9.4 of F 135-5454 are hereby rescinded.

Compliance Determination Requirements

There are no specific Compliance Determination Requirements applicable to these emission units.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

There are no specific Compliance Monitoring Requirements applicable to these emission units.

SECTION D.8 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(k) One (1) castings shakeout process, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) shaker, identified as East Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(2) One (1) shaker, identified as West Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(3) One (1) shaker conveyor, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.8.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the castings shakeout process shall not exceed 12.1 pounds per hour when operating at a process weight rate of 5.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.8.2 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

The PM_{10} emission rate from the castings shakeout process after control shall not exceed 1.422 pounds per ton of metal processed, equivalent to 9.19 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.8.3 Particulate Matter (PM) [326 IAC 2-2]

The PM emission rate from the castings shakeout process after control shall not exceed 0.2224 pounds per ton of metal processed, equivalent to 1.44 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.8.4 Nonapplicability

Conditions D.7.3(b) and D.7.4(b) of F 135-5454, which limited PM and PM_{10} emissions from the castings shakeout process to 0.064 and 0.0448 pounds per ton of metal processed, respectively, have not been included in this renewal. The PM and PM_{10} limits were changed to 0.2224 and 1.422 pounds per ton, respectively, and are included in Conditions D.8.2 and D.8.3 of this permit. Thus, Conditions D.7.3(b) and D.7.4(b) of F 135-5454 are hereby rescinded.

D.8.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.8.6 Particulate Matter (PM)

In order to comply with Conditions D.8.1, D.8.2 and D.8.3, the baghouses for PM control shall be in operation and control emissions from the castings shakeout process at all times that the castings shakeout process is in operation.

D.8.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.8.1, D.8.2, and D.8.3, the Permittee shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.8.8 Visible Emissions Notations

(a) Visible emission notations of the castings shakeout stack exhausts (Stack C and Stack F) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.8.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the castings shakeout process, at least once per shift when the castings shakeout process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the 65,000 cfm baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, or the pressure drop across the 35,000 cfm baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.8.10 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the castings shakeout process when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.8.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.8.12 Record Keeping Requirements

(a) To document compliance with Condition D.8.8, the Permittee shall maintain records of once per shift visible emission notations of the castings shakeout stack exhausts (Stack C and Stack F).

(b) To document compliance with Condition D.8.9, the Permittee shall maintain the following:

(1) Once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with Condition D.8.10, the Permittee shall maintain records of the results of the inspections required under Condition D.8.10 and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.9 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(l) One (1) cleaning and finishing operation, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) snag grinding operation, consisting of four (4) snag grinders, controlled by the 5,600 cfm baghouse, exhausting to Stack D.

(2) One (1) Wheelabrator shot blasting unit, identified as North Wheelabrator, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(3) One (1) Wheelabrator shot blasting unit, identified as South Wheelabrator, controlled by the 2,750 cfm baghouse, exhausting to Stack E.

(4) One (1) cut-off saw, controlled by the 2,750 cfm baghouse, exhausting to Stack E.

(5) One (1) cut-off saw, controlled by the 5,600 cfm baghouse, exhausting to Stack D.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.9.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the cleaning and finishing operations shall not exceed 12.1 pounds per hour when operating at a process weight rate of 5.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.9.2 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

The PM_{10} emission rate from the cleaning and finishing operations after controls shall not exceed 1.079 pounds per ton of metal processed, equivalent to 6.97 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

D.9.3 Particulate Matter (PM) [326 IAC 2-2]

The PM emission rate from the cleaning and finishing operations after controls shall not exceed 1.18 pounds per ton of metal processed, equivalent to 7.63 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

D.9.4 Nonapplicability

Conditions D.2.2 and D.2.3 of F 135-5454, which limited PM and PM_{10} emissions from the castings shakeout process to 0.17 and 0.017 pounds per ton of metal processed, respectively, have not been

included in this renewal. The PM and PM_{10} limits were changed to 1.18 and 1.079 pounds per ton, respectively, and are included in Conditions D.9.2 and D.9.3 of this permit. Thus, Conditions D.2.2 and D.2.3 of F 135-5454 are hereby rescinded.

D.9.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.9.6 Particulate Matter (PM)

In order to comply with Conditions D.9.1, D.9.2 and D.9.3, the baghouses for PM control shall be in operation and control emissions from the cleaning and finishing operations at all times that the cleaning and finishing operations are in operation.

D.9.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, in order to demonstrate compliance with Conditions D.9.1, D.9.2, and D.9.3, the Permittee shall perform PM and PM-10 testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.9.8 Visible Emissions Notations

(a) Visible emission notations of the cleaning and finishing operations stack exhausts (Stacks C, D and E) shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

D.9.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the three (3) baghouses used in conjunction with the cleaning and finishing operations, at least once per shift when the cleaning and finishing operations are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the 65,000 cfm baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, or the pressure drop across the 2,750 cfm baghouse is outside the normal range of 1.0 and 3.0 inches of water or a range established during the

latest stack test, or the pressure drop across the 5,600 cfm baghouse is outside the normal range of 0.8 and 2.5 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.9.10 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the cleaning and finishing operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

D.9.11 Broken or Failed Bag Detection

In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.9.12 Record Keeping Requirements

(a) To document compliance with Condition D.9.8, the Permittee shall maintain records of once per shift visible emission notations of the cleaning and finishing operations stack exhausts (Stacks C, D and E).

(b) To document compliance with Condition D.9.9, the Permittee shall maintain the following:

(1) Once per shift records of the total static pressure drop during normal operation when venting to the atmosphere.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with Condition D.9.10, the Permittee shall maintain records of the

results of the inspections required under Condition D.9.10 and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.10 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) two (2) annealing ovens (four burner type), rated at 3.4 million British thermal units per hour, each.

(2) one (1) annealing oven (five burner type), rated at 2 million British thermal units per hour.

(b) Equipment powered by internal combustion engines:

one (1) emergency generator, firing diesel fuel, rated at 250 horsepower.

(c) Paved and unpaved roads and parking lots with public access.

(d) A gasoline fuel transfer and dispensing operation.

(e) A petroleum fuel dispensing facility.

(f) Grinding operations.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.10.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the grinding operations shall not exceed allowable PM emission rate based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

or

If the process weight rate is less than one hundred pounds per hour, then the allowable emission rate shall be 0.551 pounds per hour.

D.10.2 Operation Limitation

Pursuant to the definition of emergency generators, operation of the emergency generator, shall be limited to an annual total of 500 hours.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.10.3 Record Keeping Requirements

(a) To document compliance with Condition D.10.2, the Permittee shall maintain records of the following:

(1) The hours of operation of the emergency generator;

(2) Records of the annual fuel usage of the emergency generator.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: OMCO Cast Metals, Inc.
Source Address: 900 North Main Street, Winchester, Indiana
Mailing Address: P.O. Box 462, Winchester, Indiana 47394
FESOP No.: F 135-14182-00007

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: OMCO Cast Metals, Inc.
Source Address: 900 North Main Street, Winchester, Indiana
Mailing Address: P.O. Box 462, Winchester, Indiana 47394
FESOP No.: F 135-14182-00007

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_x, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: OMCO Cast Metals, Inc.
Source Address: 900 North Main Street, Winchester, Indiana
Mailing Address: P.O. Box 462, Winchester, Indiana 47394
FESOP No.: F 135-14182-00007
Facilities: the two (2) electric induction furnaces
Parameter: amount of metal melted
Limit: 12,924 tons per twelve (12) consecutive month period

YEAR: _____

Month	tons of metal melted	tons of metal melted	tons of metal melted
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: OMCO Cast Metals, Inc.
Source Address: 900 North Main Street, Winchester, Indiana
Mailing Address: P.O. Box 462, Winchester, Indiana 47394
FESOP No.: F 135-14182-00007
Facility: the sand handling process
Parameter: sand throughput
Limit: 144,014 tons per twelve (12) consecutive month period

YEAR: _____

Month	tons of sand handled	tons of sand handled	tons of sand handled
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: OMCO Cast Metals, Inc.
Source Address: 900 North Main Street, Winchester, Indiana
Mailing Address: P.O. Box 462, Winchester, Indiana 47394
FESOP No.: F 135-14182-00007

Months: _____ **to** _____ **Year:** _____

This report is an affirmation that the source has met all the requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

August 12, 2002
Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document for Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	**OMCO Cast Metals, Inc.**
Source Location:	**900 North Main Street, Winchester, Indiana**
County:	**Randolph**
SIC Code:	**3321 and 3322**
Operation Permit No.:	**F 135-14182-00007**
Permit Reviewer:	**Edward A. Longenberger**

On March 13, 2002, the Office of Air Quality (OAQ) had a notice published in the News-Gazette, Winchester, Indiana, stating that OMCO Cast Metals, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a grey and ductile iron casting foundry with baghouses as PM control. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On April 11, 2002, Astbury Environmental Engineering, Inc., on behalf of OMCO Cast Metals, Inc., submitted comments on the proposed FESOP Renewal. The summary of the comments is as follows:

Comment 1:

OMCO requests that the "Responsible Official" in Section A.1 be changed from David Hardy, Plant Manager, to Chuck Harwell, Vice President.

Response 1:

Section A.1 was changed accordingly:

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary grey and ductile iron casting foundry.

Authorized Individual:	**Chuck Harwell, Vice President** ~~David Hardy, Plant Manager~~
Source Address:	900 North Main Street, Winchester, Indiana
Mailing Address:	P.O. Box 462, Winchester, Indiana
General Source Phone Number:	317 - 584 - 4000
SIC Code:	3321 and 3322
County Location:	Randolph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

Comment 2:

OMCO requests that the spelling “grey iron foundry” be changed to “gray iron foundry” throughout the FESOP.

Response 2:

All references to “grey iron foundry” have been changed to “gray iron foundry.”

Comment 3:

In Section A.3(f), the words “and machining” should be omitted. Machining operations are not performed at OMCO.

Response 3:

Section A.3(f), the facility description box in Section D.10, and Condition D.10.1 have been amended as follows:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(f) Grinding ~~and machining~~ operations.

SECTION D.10 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

(f) Grinding ~~and machining~~ operations.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.10.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the grinding ~~and machining~~ operations shall not exceed allowable PM emission rate based on the following equation:

Comment 4:

AEE has observed that in Sections D.5, D.8, and D.9 of the FESOP, under Record Keeping Requirements, some of the conditions listed appear to contain erroneous references.

Response 4:

The references in the following record keeping conditions were corrected as shown:

D.5.13 Record Keeping Requirements

(a) To document compliance with Condition D.5.1, the Permittee shall maintain records of the total monthly amount of sand delivered to the sand handling system.

(b) To document compliance with Condition D.5.**9**~~8~~, the Permittee shall maintain records of once per shift visible emission notations of the sand handling process stack exhaust (Stack F).

(c) To document compliance with Condition D.5.**10**~~9~~, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere: differential pressure.

(2) Documentation of the dates vents are redirected.

(d) To document compliance with Condition D.5.**11**~~10~~, the Permittee shall maintain records of the results of the inspections required under Condition D.5.**11**~~10~~ and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.8.12 Record Keeping Requirements

(a) To document compliance with Condition D.8.**8**~~7~~, the Permittee shall maintain records of once per shift visible emission notations of the castings shakeout stack exhausts (Stack C and Stack F).

(b) To document compliance with Condition D.8.**9**~~8~~, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere: differential pressure.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with Condition D.8.**10**~~9~~, the Permittee shall maintain records of the results of the inspections required under Condition D.8.**10**~~9~~ and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.9.12 Record Keeping Requirements

(a) To document compliance with Condition D.9.**8**~~7~~, the Permittee shall maintain records of once per shift visible emission notations of the cleaning and finishing operations stack exhausts (Stacks C, D and E).

(b) To document compliance with Condition D.9.**9**~~8~~, the Permittee shall maintain the following:

(1) Once per shift records of the following operational parameters during normal operation when venting to the atmosphere: differential pressure.

(2) Documentation of the dates vents are redirected.

(c) To document compliance with Condition D.9.**10**~~9~~, the Permittee shall maintain records of the results of the inspections required under Condition D.9.**10**~~9~~ and the dates the vents are redirected.

(d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

Comment 5:

In Section D.4, Conditions D.4.2, D.4.3, and D.4.4 refer to the emissions of the sand bin cartridge filter dust collector. In fact, the cartridge filter dust collector exhausts internally and not to an external stack. AEE regrets this error and any inconvenience it may have caused.

Response 5:

The fact that the sand bin exhausts internally does not exempt the emission unit from air permitting requirements. For accuracy, the description of the sand bin has been changed accordingly in Section A.2(e) and in the facility description box in Section D.4:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(e) One (1) core forming line, capacity: 3.35 tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting **internally** ~~to Stack J~~

(2) one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K

(3) one (1) core oven, uncontrolled, exhausting to Stack L

(4) one (1) pepset line, uncontrolled and exhausting internally

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(e) One (1) core forming line, capacity: 3.35 tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting **internally** ~~to Stack J~~

(2) one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K

(3) one (1) core oven, uncontrolled, exhausting to Stack L

(4) one (1) pepset line, uncontrolled and exhausting internally

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 6:

In Section D.1, Condition D.1.1 stipulates that only one (1) of the induction furnaces may be operated at a time. To clarify, both induction furnaces are “on” continuously: full power is directed to one

furnace, which is used to melt metal, and partial power is directed to the other furnace, which is used to hold molten metal in preparation for processing. The furnaces alternate between these modes. It is technically possible to operate both furnaces for melting simultaneously by directing full power to both, however, the electric utility would levy a significant financial penalty in response to this. Therefore, the facility does not melt metal in both furnaces simultaneously (in this way, only one furnace is "operated" at a time because only one is used to melt metal at a time). Also, please note that both exhaust fans (exhausting the electric induction furnaces to Stacks A and B, respectively) run continuously regardless of whether one or both furnaces are operating. This also should not affect emissions.

Response 6:

Condition D.1.1 was changed to state that only one furnace may melt metal at a time, which was the original intent of the condition:

D.1.1 Electric Induction Furnaces Operation

No more than one (1) of the two (2) electric induction furnaces shall be **used for the purpose of melting metal** ~~operated~~ at any time.

Also, the facility descriptions for the furnaces were changed as shown:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) Two (2) Brown-Boveri electric induction furnaces, each with a maximum capacity of 3.35 tons of metal per hour, exhausting to Stacks A and B. ~~(only one operates at a time).~~

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) Two (2) Brown-Boveri electric induction furnaces, each with a maximum capacity of 3.35 tons of metal per hour, exhausting to Stacks A and B. ~~(only one operates at a time).~~

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 7:

The FESOP states that the capacity of the operation as a whole for metal melting is 3.35 tons of metal per hour. In fact, the capacity of the induction furnaces for melting or pouring is 5.0 tons of metal per hour. OMCO will, of course, continue to adhere to the annual throughput limitation specified in the FESOP.

Response 7:

The foundry capacity of 5.0 tons per hour will be reflected throughout the permit. Although the unrestricted potential to emit of the source will increase, as shown on pages 1 through 6 of the revised

Appendix A, the company will still limit annual throughput to less than 12,924 tons of metal melted per year. Therefore, the limited potential to emit of the source will not change. The higher capacity will result in higher allowable PM emission rates, pursuant to 326 IAC 6-3-2. As a result of this comment, the following changes were made to Sections A and D:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) Two (2) Brown-Boveri electric induction furnaces, each with a maximum capacity of ~~3.35~~ **5.0** tons of metal per hour, exhausting to Stacks A and B.

(b) Scrap and charge handling process, uncontrolled and exhausting internally, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(c) One (1) natural gas-fired scrap preheat furnace, controlled by the 65,000 cfm baghouse, exhausting to Stack C, rated at 12 million British thermal units per hour, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(d) One (1) mold making process, capacity: ~~3.35~~ **5.0** tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack G, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack H, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(3) Two (2) Osborne rotolift molding machines, controlled by a pulsed baghouse, exhausting to Stack I, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(4) One (1) squeezer molding machine, controlled by a pulsed baghouse, exhausting to Stack I, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(e) One (1) core forming line, capacity: ~~3.35~~ **5.0** tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting internally

(2) one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K

(3) one (1) core oven, uncontrolled, exhausting to Stack L

(4) one (1) pepset line, uncontrolled and exhausting internally

(f) One (1) sand handling system, consisting of a muller and other necessary equipment, controlled by the 35,000 cfm baghouse, exhausting to Stack F, capacity: 30 tons of sand per hour.

(g) One (1) sand reclaimer, identified as sand reclaimer, controlled by the 2,750 cfm baghouse, exhausting to Stack E, capacity: 7.5 tons of sand per hour.

(h) One (1) inoculation/magnesium treatment process, uncontrolled, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(i) One (1) pouring/casting process, uncontrolled and exhausting internally, capacity: ~~3.35~~ **5.0** tons of metal per hour and 30 tons of sand per hour.

(j) One (1) castings cooling process, uncontrolled and exhausting internally, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(k) One (1) castings shakeout process, capacity: ~~3.35~~ **5.0** tons of metal per hour, consisting of the following:

(1) One (1) shaker, identified as East Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(2) One (1) shaker, identified as West Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(3) One (1) shaker conveyor, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(l) One (1) cleaning and finishing operation, capacity: ~~3.35~~ **5.0** tons of metal per hour, consisting of the following:

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) Two (2) Brown-Boveri electric induction furnaces, each with a maximum capacity of ~~3.35~~ **5.0** tons of metal per hour, exhausting to Stacks A and B.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from each electric induction furnace shall not exceed ~~9.22~~ **12.1** pounds per hour when operating at a process weight rate of ~~3.35~~ **5.0** tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(b) Scrap and charge handling process, uncontrolled and exhausting internally, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(c) One (1) natural gas-fired scrap preheat furnace, controlled by the 65,000 cfm baghouse, exhausting to Stack C, rated at 12 million British thermal units per hour, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the scrap and charge handling process shall not exceed ~~9.22~~ **12.1** pounds per hour when operating at a process weight rate of ~~3.35~~ **5.0** tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(d) One (1) mold making process, capacity: ~~3.35~~ **5.0** tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack G, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack H, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(3) Two (2) Osborne rotolift molding machines, controlled by a pulsed baghouse, exhausting to Stack I, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(4) One (1) squeezer molding machine, controlled by a pulsed baghouse, exhausting to Stack I, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.3.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the mold making process shall not exceed ~~9.22~~ **12.1** pounds per hour when operating at a process weight rate of ~~3.35~~ **5.0** tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.4 Nonapplicability

~~(a) Condition D.7.8 of F 135-5454, the requirement to have a Preventive Maintenance Plan for the mold making process, has not been included in this renewal. While the mold making process does use control devices, the allowable emissions are less than ten (10) pounds per hour. Thus, Condition D.7.8 of F 135-5454 is hereby rescinded.~~

~~(b)~~ Conditions D.7.3(c) and D.7.4(c) of F 135-5454, the requirements to limit PM and PM_{10} emissions from mold making to 0.011 pounds per ton of metal processed, have not been included in this renewal. The limits have been changed to 1.1 pounds per ton of metal processed, and are included as Conditions D.3.2 and D.3.3 of this permit. Thus, Conditions D.7.3(c) and D.7.4(c) of F 135-5454 are hereby rescinded.

D.3.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(e) One (1) core forming line, capacity: ~~3.35~~ **5.0** tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting internally

(2) one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K

(3) one (1) core oven, uncontrolled, exhausting to Stack L

(4) one (1) pepset line, uncontrolled and exhausting internally

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.4.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the core making process shall not exceed ~~9.22~~ **12.1** pounds per hour when operating at a process weight rate of ~~3.35~~ **5.0** tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.4.4 Nonapplicability

(a) Conditions D.8.4, D.8.5, D.8.6, and D.8.7 of F 135-5454, the Compliance Monitoring Requirements, the resulting Record Keeping and Reporting Requirements, and the requirements to have a Preventive Maintenance Plan for the core making process, have not been included in this renewal. While the core making process does use some control devices, ~~the allowable emissions are less than ten (10) pounds per hour~~ **the uncontrolled emissions from the core making process are less than the allowable emission rate prescribed by 326 IAC 6-3-2**. Thus, Conditions D.8.4, D.8.5, D.8.6, and D.8.7 of F 135-5454 are hereby rescinded.

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(h) One (1) inoculation/magnesium treatment process, uncontrolled, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(i) One (1) pouring/casting process, uncontrolled and exhausting internally, capacity: ~~3.35~~ **5.0** tons of metal per hour and 30 tons of sand per hour.

(j) One (1) castings cooling process, uncontrolled and exhausting internally, capacity: ~~3.35~~ **5.0** tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.7.1 Particulate Matter (PM) [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the inoculation/magnesium treatment process, and the castings cooling process shall each not exceed ~~9.22~~ **12.1** pounds per hour when operating at a process weight rate of ~~3.35~~ **5.0** tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the pouring/casting process shall not exceed ~~40.9~~ **41.3** pounds per hour when operating at a

process weight rate of ~~33.35~~ **35.0** tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0 P^{0.11} - 40$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

SECTION D.8 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(k) One (1) castings shakeout process, capacity: ~~3.35~~ **5.0** tons of metal per hour, consisting of the following:

(1) One (1) shaker, identified as East Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(2) One (1) shaker, identified as West Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(3) One (1) shaker conveyor, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.8.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the castings shakeout process shall not exceed ~~9.22~~ **12.1** pounds per hour when operating at a process weight rate of ~~3.35~~ **5.0** tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

SECTION D.9 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(l) One (1) cleaning and finishing operation, capacity: ~~3.35~~ **5.0** tons of metal per hour, consisting of the following:

(1) One (1) snag grinding operation, consisting of four (4) snag grinders, controlled by the 5,600 cfm baghouse, exhausting to Stack D.

(2) One (1) Wheelabrator shot blasting unit, identified as North Wheelabrator, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(3) One (1) Wheelabrator shot blasting unit, identified as South Wheelabrator, controlled by the 2,750 cfm baghouse, exhausting to Stack E.

(4) One (1) cut-off saw, controlled by the 2,750 cfm baghouse, exhausting to Stack E.

(5) One (1) cut-off saw, controlled by the 5,600 cfm baghouse, exhausting to Stack D.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.9.1 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the cleaning and finishing operations shall not exceed ~~9.22~~ **12.1** pounds per hour when operating at a process weight rate of ~~3.35~~ **5.0** tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

Comment 8:

Only approximately 50% of the metal melted at the facility is directed through the finishing operation due to removal by hammer of large excess metal pieces from the castings prior to finishing (this occurs after cleaning but prior to finishing). These excess metal pieces are re-directed to the induction furnaces as scrap and do not enter later stages of the process. Based on this information, adjustments may need to be made to the metal throughput to the cleaning and finishing operation in the appropriate permit sections.

Response 8:

For the purposes of air permitting, the worst case scenario must be considered. The worst case, in terms of the maximum air emissions, would be the case where all of the metal melted reaches the final finishing stage of the process. No change to the permit is made as a result of this comment.

Comment 9:

The Osborne molding machines have been taken permanently off-line. Therefore, the Facility Description in Section D.3 should be modified to omit line (3) describing the Osborne rotolift molding machines.

Response 9:

Section A.2(d) and the facility description box in Section D.3 have been changed as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(d) One (1) mold making process, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack G, capacity: 5.0 tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack H, capacity: 5.0 tons of metal per hour.

~~(3) Two (2) Osborne rotolift molding machines, controlled by a pulsed baghouse, exhausting to Stack I, capacity: 5.0 tons of metal per hour.~~

(**3**~~4~~) One (1) squeezer molding machine, controlled by a pulsed baghouse, exhausting to Stack I, capacity: 5.0 tons of metal per hour.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(d) One (1) mold making process, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack G, capacity: 5.0 tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack H, capacity: 5.0 tons of metal per hour.

~~(3) Two (2) Osborne rotolift molding machines, controlled by a pulsed baghouse, exhausting to Stack I, capacity: 5.0 tons of metal per hour.~~

(**3**~~4~~) One (1) squeezer molding machine, controlled by a pulsed baghouse, exhausting to Stack I, capacity: 5.0 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 10:

OMCO has indicated that the bond silo described in line (2) of the Facility Description for Section D.4 would more appropriately be included in Section D.5, as part of the Sand Handling operation.

Response 10:

The descriptive information for the bond silo has been removed from Section D.4 and added to Section D.5. This will have no effect on emission calculations or emission limitations:

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(e) One (1) core forming line, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting to Stack J

~~(2) one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K~~

(**2**~~3~~) one (1) core oven, uncontrolled, exhausting to Stack L

(**3**~~4~~) one (1) pepset line, uncontrolled and exhausting internally

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.5 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(f) One (1) sand handling system, consisting of a muller and other necessary equipment, controlled by the 35,000 cfm baghouse, exhausting to Stack F, capacity: 30 tons of sand per hour. **The sand handling system also includes one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K.**

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 11:

Please note that prior to issuance of the renewal FESOP, OMCO plans to re-direct the 2,750 cfm and 5,600 cfm baghouses to exhaust internally. Therefore, the emissions from these control devices will no longer contribute to the facility's emissions, and the requirement for stack testing on these baghouses should no longer apply.

Response 11:

Exhausting into the building does not assure that no PM will be emitted to the atmosphere. If noticeable particulate matter were to be emitted from a control device, the employees working in that area would be reasonably expected to open doors or windows to allow the room to clear. The emissions may be re-directed internally, but this will not change the applicability of the emission

limitations, nor will it make testing unnecessary. No change to the permit is made as a result of this comment.

Comment 12:

Two (2) additional stacks have been identified at OMCO. Specifically, a stack is used to vent methyl formate from the coremaking operation. In 2001, the facility used 2,585 gallons of the methyl formate-containing chemical (Borden Betacure® 100; see MSDS in Appendix A). Assuming the chemical is 100% methyl formate (the MSDS lists the percentage at >70), this stack is expected to contribute 10.4 tpy VOCs. In addition, an exhaust hood that moves with the ladle is used to draw emissions from the inoculation and magnesium treatment processes out of the plant. OMCO requests that this description be added to Section A.2(h), which currently states only that the process is uncontrolled.

Response 12:

The standard emission factors for gray iron foundries attribute the VOC emissions from the chemicals used in the core making process to the castings shakeout process, rather than the core making process. It is assumed that the VOCs remain in the cores through the casting process, and are released once the core is broken up during castings shakeout. As stated on page 6 of 15 of the TSD, the castings shakeout process is expected to emit 7.75 tons of VOC per year, which is consistent with your predictions. The exhaust hood has been added to the facility description for the inoculation/magnesium treatment process in Section A.2 and D.7:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(h) One (1) inoculation/magnesium treatment process, **consisting of a ladle equipped with an exhaust hood** ~~uncontrolled~~, capacity: 5.0 tons of metal per hour.

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(h) One (1) inoculation/magnesium treatment process, **consisting of a ladle equipped with an exhaust hood** ~~uncontrolled~~, capacity: 5.0 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Upon further review, the OAQ has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

1. Baghouse identifications were added to the facility descriptions for the mold making process. Compliance monitoring conditions are not necessary since the emission units comply with all applicable requirements even without the use of control devices. The description in Section A.2 and in the Facility Description Box in Section D.3 were revised as follows:

(d) One (1) mold making process, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, **identified as Baghouse 1**, exhausting to Stack G, capacity: 5.0 tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, **identified as Baghouse 2**, exhausting to Stack H, capacity: 5.0 tons of metal per hour.

(3) One (1) squeezer molding machine, controlled by a pulsed baghouse, **identified as Baghouse 3**, exhausting to Stack I, capacity: 5.0 tons of metal per hour.

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(d) One (1) mold making process, capacity: 5.0 tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, **identified as Baghouse 1**, exhausting to Stack G, capacity: 5.0 tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, **identified as Baghouse 2**, exhausting to Stack H, capacity: 5.0 tons of metal per hour.

(3) One (1) squeezer molding machine, controlled by a pulsed baghouse, **identified as Baghouse 3**, exhausting to Stack I, capacity: 5.0 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

2. The separate emission factors for pouring and cooling have been replaced by the standard AP-42 emission factors of 4.2 and 2.06 pounds per ton of PM and PM_{10}, respectively, for the combined pouring and cooling operation. Therefore, the overall pouring and cooling potential to emit remains the same. The change will not affect rule applicability or emission limitations. The only effect this change has is to clarify that the limited potential PM and PM_{10} emissions from pouring and cooling were calculated using standard AP-42 emission factors, and therefore do not require stack testing. This change does not necessitate a change to the source-wide annual production limit of 12,924 tons of metal melted per year. Conditions D.7.2 and D.7.3 have been amended as follows:

D.7.2 Particulate Matter (PM_{10}) [326 IAC 2-8-4] [326 IAC 2-2]

(a) The PM_{10} emission rate from the inoculation/magnesium treatment process after controls shall not exceed 1.8 pounds per ton of metal processed, equivalent to 11.6 tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

(b) The PM_{10} emission rate from the pouring **and cooling** ~~/casting~~ processes after controls shall not exceed **a total of 2.06** ~~0.66~~ pounds per ton of metal processed, equivalent to **13.3** ~~4.26~~ tons of PM_{10} per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.

~~(c) The PM_{10} emission rate from the castings cooling process after controls shall not exceed 1.4 pounds per ton of metal processed, equivalent to 9.05 tons of PM_{10} per year at the production~~

~~limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-7 and 326 IAC 2-2 are not applicable.~~

D.7.3 Particulate Matter (PM) [326 IAC 2-2]

(a) The PM emission rate from the inoculation/magnesium treatment process after controls shall not exceed 1.8 pounds per ton of metal processed, equivalent to 11.6 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

(b) The PM emission rate from the pouring **and cooling** ~~/casting~~ processes after controls shall not exceed **a total of 4.2** ~~2.8~~ pounds per ton of metal processed, equivalent to **27.1** ~~18.1~~ tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.

~~(c) The PM emission rate from the castings cooling process after controls shall not exceed 1.4 pounds per ton of metal processed, equivalent to 9.05 tons of PM per year at the production limit stated in Condition D.1.2 of this permit. Therefore, the requirements of 326 IAC 2-2 are not applicable.~~

3. The record keeping requirements for baghouses have changed to more accurately reflect the intent of the parametric monitoring condition. Also, since the pressure drop readings for the baghouse controlling the sand reclaimer are required once per shift, the records in Condition D.6.12(b)(1) must also be kept once per shift:

D.5.13 Record Keeping Requirements

(a) To document compliance with Condition D.5.1, the Permittee shall maintain records of the total monthly amount of sand delivered to the sand handling system.

(b) To document compliance with Condition D.5.9, the Permittee shall maintain records of once per shift visible emission notations of the sand handling process stack exhaust (Stack F).

(c) To document compliance with Condition D.5.10, the Permittee shall maintain the following:

(1) Once per shift records of the **total static pressure drop** ~~following operational parameters~~ during normal operation when venting to the atmosphere. ~~: differential pressure.~~

(2) Documentation of the dates vents are redirected.

D.6.12 Record Keeping Requirements

(a) To document compliance with Condition D.6.6, the Permittee shall maintain records of visible emission notations of the sand reclaimer stack exhaust (Stack E).

(b) To document compliance with Condition D.6.7, the Permittee shall maintain the following:

(1) ~~Weekly~~ **Once per shift** records of the **total static pressure drop** ~~following operational parameters~~ during normal operation when venting to the atmosphere. ~~: differential pressure.~~

(2) Documentation of the dates vents are redirected.

D.8.12 Record Keeping Requirements

(a) To document compliance with Condition D.8.8, the Permittee shall maintain records of once per shift visible emission notations of the castings shakeout stack exhausts (Stack C and Stack F).

(c) To document compliance with Condition D.8.9, the Permittee shall maintain the following:

(1) Once per shift records of the **total static pressure drop** ~~following operational parameters~~ during normal operation when venting to the atmosphere. ~~: differential pressure.~~

(2) Documentation of the dates vents are redirected.

D.9.12 Record Keeping Requirements

(a) To document compliance with Condition D.9.8, the Permittee shall maintain records of once per shift visible emission notations of the cleaning and finishing operations stack exhausts (Stacks C, D and E).

(c) To document compliance with Condition D.9.9, the Permittee shall maintain the following:

(1) Once per shift records of the **total static pressure drop** ~~following operational parameters~~ during normal operation when venting to the atmosphere. ~~: differential pressure.~~

(2) Documentation of the dates vents are redirected.

4. The following descriptive information was added to Section A.2 and the appropriate D sections:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) Two (2) Brown-Boveri electric induction furnaces, **identified as North and South,** each with a maximum capacity of 5.0 tons of metal per hour, exhausting to Stacks A and B.

(b) Scrap and charge handling process, **including a magnetic crane,** uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour.

(e) One (1) core forming line, **consisting of beta system, shell core system and oil sand bench core making,** capacity: 5.0 tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting internally

(2) one (1) core oven, uncontrolled, exhausting to Stack L

(3) one (1) pepset line, uncontrolled and exhausting internally

(i) One (1) pouring/casting process, **consisting of two pouring ladles,** uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour and 30 tons of sand per hour.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) Two (2) Brown-Boveri electric induction furnaces, **identified as North and South,** each with a maximum capacity of 5.0 tons of metal per hour, exhausting to Stacks A and B.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(b) Scrap and charge handling process, **including a magnetic crane,** uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour.

(c) One (1) natural gas-fired scrap preheat furnace, controlled by the 65,000 cfm baghouse, exhausting to Stack C, rated at 12 million British thermal units per hour, capacity: 5.0 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(e) One (1) core forming line, **consisting of beta system, shell core system and oil sand bench core making,** capacity: 5.0 tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting internally

(2) one (1) core oven, uncontrolled, exhausting to Stack L

(3) one (1) pepset line, uncontrolled and exhausting internally

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

SECTION D.7 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(h) One (1) inoculation/magnesium treatment process, consisting of a ladle equipped with an exhaust hood, capacity: 5.0 tons of metal per hour.

(i) One (1) pouring/casting process, **consisting of two pouring ladles,** uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour and 30 tons of sand per hour.

(j) One (1) castings cooling process, uncontrolled and exhausting internally, capacity: 5.0 tons of metal per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

August 12, 2002

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	**OMCO Cast Metals, Inc.**
Source Location:	**900 North Main Street, Winchester, Indiana**
County:	**Randolph**
SIC Code:	**3321 and 3322**
Operation Permit No.:	**F 135-14182-00007**
Permit Reviewer:	**Edward A. Longenberger**

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from OMCO Cast Metals, Inc. relating to the operation of a grey and ductile iron casting foundry. OMCO Cast Metals, Inc. was issued FESOP 135-5454-00007, on December 13, 1996.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Two (2) Brown-Boveri electric induction furnaces, each with a maximum capacity of 3.35 tons of metal per hour, exhausting to Stacks A and B. (only one operates at a time).

(b) Scrap and charge handling process, uncontrolled and exhausting internally, capacity: 3.35 tons of metal per hour.

(c) One (1) natural gas-fired scrap preheat furnace, controlled by the 65,000 cfm baghouse, exhausting to Stack C, rated at 12 million British thermal units per hour, capacity: 3.35 tons of metal per hour.

(d) One (1) mold making process, capacity: 3.35 tons of metal per hour, consisting of the following:

(1) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack G, capacity: 3.35 tons of metal per hour.

(2) One (1) B&P mold making unit, controlled by a pulsed baghouse, exhausting to Stack H, capacity: 3.35 tons of metal per hour.

(3) Two (2) Osborne rotolift molding machines, controlled by a pulsed baghouse, exhausting to Stack I, capacity: 3.35 tons of metal per hour.

(4) One (1) squeezer molding machine, controlled by a pulsed baghouse, exhausting to Stack I, capacity: 3.35 tons of metal per hour.

(e) One (1) core forming line, capacity: 3.35 tons of metal per hour, consisting of the following:

(1) one (1) sand bin, controlled by a cartridge filter, exhausting to Stack J

(2) one (1) bond silo, controlled by a pulsed baghouse, exhausting to Stack K

(3) one (1) core oven, uncontrolled, exhausting to Stack L

(4) one (1) pepset line, uncontrolled and exhausting internally

(f) One (1) sand handling system, consisting of a muller and other necessary equipment, controlled by the 35,000 cfm baghouse, exhausting to Stack F, capacity: 30 tons of sand per hour.

(g) One (1) sand reclaimer, identified as sand reclaimer, controlled by the 2,750 cfm baghouse, exhausting to Stack E, capacity: 7.5 tons of sand per hour.

(h) One (1) inoculation/magnesium treatment process, uncontrolled, capacity: 3.35 tons of metal per hour.

(i) One (1) pouring/casting process, uncontrolled and exhausting internally, capacity: 3.35 tons of metal per hour and 30 tons of sand per hour.

(j) One (1) castings cooling process, uncontrolled and exhausting internally, capacity: 3.35 tons of metal per hour.

(k) One (1) castings shakeout process, capacity: 3.35 tons of metal per hour, consisting of the following:

(1) One (1) shaker, identified as East Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(2) One (1) shaker, identified as West Shaker, controlled by the 35,000 cfm baghouse, exhausting to Stack F.

(3) One (1) shaker conveyor, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(l) One (1) cleaning and finishing operation, capacity: 3.35 tons of metal per hour, consisting of the following:

(1) One (1) snag grinding operation, consisting of four (4) snag grinders, controlled by the 5,600 cfm baghouse, exhausting to Stack D.

(2) One (1) Wheelabrator shot blasting unit, identified as North Wheelabrator, controlled by the 65,000 cfm baghouse, exhausting to Stack C.

(3) One (1) Wheelabrator shot blasting unit, identified as South Wheelabrator, controlled by the 2,750 cfm baghouse, exhausting to Stack E.

(4) One (1) cut-off saw, controlled by the 2,750 cfm baghouse, exhausting to Stack E.

(5) One (1) cut-off saw, controlled by the 5,600 cfm baghouse, exhausting to Stack D.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new facilities proposed at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, including:

(1) two (2) annealing ovens (four burner type), rated at 3.4 million British thermal units per hour, each.

(2) one (1) annealing oven (five burner type), rated at 2 million British thermal units per hour.

(b) Equipment powered by internal combustion engines:

one (1) emergency generator, firing diesel fuel, rated at 250 horsepower.

(c) Paved and unpaved roads and parking lots with public access.

(d) A gasoline fuel transfer and dispensing operation.

(e) A petroleum fuel dispensing facility.

(f) Grinding and machining operations.

Existing Approvals

(a) FESOP 135-5454-00007, issued on December 13, 1996;

(b) AAF 135-10039-00007, issued on September 4, 1998;

(c) AAF 135-10461-00007, issued on January 26, 1999; and

(d) SPR 135-12667-00007, issued December 20, 2001.

All conditions from previous approvals were incorporated into this FESOP except the following:

(a) FESOP 135-5454-00007, issued on December 13, 1996

Condition D.1.2, which limited the total amount of metal melted to 20,240 tons per twelve (12) consecutive month period.

Reason not incorporated: The amount of metal melted is now limited to 12,924 tons per twelve

(12) consecutive month period.

(b) FESOP 135-5454-00007, issued on December 13, 1996

Conditions D.1.5, D.3.4, D.4.4, D.5.4, D.6.4, D.7.8, D.8.5, and D.9.4 which required Preventive Maintenance Plans for the electric induction furnaces, the scrap and charge handling process, the inoculation process, the pouring/casting process, the castings cooling process, the sand handling system, the mold making process, the core making process, and the magnesium treatment process, respectively.

Reason not incorporated: Each of these processes either have no control devices and actual emissions less than twenty-five (25) tons per year, or they do have control devices and their allowable emissions are less than ten (10) pounds per hour. Furthermore, in each case where a control device is present, the control device is not needed to comply with 326 IAC 6-3-2 or 326 IAC 2-8. Therefore, Preventive Maintenance Plans are not needed for the above facilities.

(c) FESOP 135-5454-00007, issued on December 13, 1996

Conditions D.8.4, D.8.6 and D.8.7 contained compliance monitoring requirements and the associated record keeping requirements for the core making process.

Reason not incorporated: While the core making process does have some control devices, the allowable emissions are less than ten (10) pounds per hour. Further, the control devices are not needed to comply with 326 IAC 6-3-2 or 326 IAC 2-8. Therefore, the compliance monitoring requirements and the associated record keeping requirements have been removed.

(d) FESOP 135-5454-00007, issued on December 13, 1996

Conditions D.2.2, D.2.3, D.4.2, D.4.3, D.5.2, D.7.3(a), D.7.4(a), D.7.3(b), D.7.4(b), D.7.3(c), D.7.4(c), D.8.2, D.8.3, D.9.2, D.9.3, D.10.2, and D.10.3 each contained pound per ton PM or PM_{10} limits for individual processes which were intended to limit the total source PM and PM_{10} emissions to less than one hundred (100) tons per year. The pound per ton limits were based on an annual metal melt limit of 20,240 tons per year.

Reason not incorporated: Since the annual metal melt limit has been changed to 12,924 tons per twelve (12) consecutive month period, the pounds per ton limits were changed accordingly.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP Renewal application for the purposes of this review was received on March 14, 2001. Additional information was received via fax on November 21, 2001.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 9 of 9 of Appendix A of this document for detailed emissions calculations.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	**Unrestricted Potential Emissions** (tons/year)
PM	1,031
PM_{10}	254
SO_2	0.444
VOC	20.0
CO	3.66
NO_X	5.94

Note: For the purpose of determining Title V applicability for particulates, PM_{10}, not PM, is the regulated pollutant in consideration.

HAPs	**Potential To Emit** (tons/year)
Benzene	0.00008
Dichlorobenzene	0.00005
Formaldehyde	0.003
Hexane	0.069
Toluene	0.0001
Lead Compounds	1.47
Cadmium Compounds	0.00004
Chromium Compounds	0.00005
Manganese Compounds	0.00001
Nickel Compounds	0.00008
TOTAL	1.54

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM_{10} is greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

The source, issued a FESOP on December 13, 1996, has opted to remain a FESOP source, rather than apply for a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit After Issuance (tons/year)						
Process/emission unit	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPs**
electric induction furnace	5.82	5.56	0.00	0.00	0.00	0.00	0.646
charge handling	3.88	2.33	0.00	0.00	0.00	0.00	0.00
mold making	7.11	7.11	0.00	0.00	0.00	0.00	0.00
core making	7.11	7.11	0.00	0.00	0.00	0.00	0.00
sand handling	18.0	24.7	0.00	0.00	0.00	0.00	0.00
sand reclaimer	8.22	11.3	0.00	0.00	0.00	0.00	0.00
inoculation/ magnesium treatment	11.6	11.6	0.00	0.00	0.00	0.00	0.00
pouring/casting	18.1	4.26	0.129	0.905	0.00	0.065	0.00
castings cooling	9.05	9.05	0.00	0.00	0.00	0.00	0.00
castings shakeout	1.44	9.19	0.00	7.75	0.00	0.00	0.00
cleaning/finishing	7.63	6.97	0.00	0.00	0.00	0.00	0.00
insignificant activities	1.27	0.801	0.151	0.369	3.66	5.79	0.073
Total PTE After Issuance	99.3	99.9	0.280	9.03	3.66	5.85	Single less than 10 Total less than 25

(a) The total amount of metal melted shall be limited to less than 12,924 tons per twelve (12) consecutive month period. The total amount of sand throughput to the sand handling system shall be less than 144,014 tons per year.

(b) In the above table, emission data for casting shakeout, sand handling, cleaning/finishing, and sand reclaimer represent emissions after throughput limits and minimum required control efficiencies. All other processes represent uncontrolled emissions based on 12,924 tons of metal melted per year.

(c) The applicant has requested that PM and PM_{10} emissions be limited to less than one hundred (100) tons per year, in order to comply with 326 IAC 2-8 (FESOP) and to remain a minor PSD source pursuant to 326 IAC 2-2. In addition to the above throughput limits, a minimum PM control efficiency of 93.05% and a minimum PM_{10} control efficiency of 36.53% on baghouses C, D, E and F is required to achieve these limitations.

(d) The sand reclaimer emissions are based on its maximum throughput of 7.5 tons per hour.

(e) The emission factors for the foundry processes are as follows:

Process / Unit ID	**PM emission factor** (lbs/ton)	**PM_{10} emission factor** (lbs/ton)
electric induction furnace	0.90	0.86
charge handling	0.60	0.36
mold making	1.1	1.1
core making	1.1	1.1
sand handling	0.2502	0.3427
sand reclaimer	0.2502	0.3427
inoculation/ magnesium treatment	1.8	1.8
pouring/casting	2.8	0.66
castings cooling	1.4	1.4
castings shakeout	0.2224	1.422
cleaning/finishing	1.18	1.079

County Attainment Status

The source is located in Randolph County.

Pollutant	**Status**
PM_{10}	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment

Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Randolph County has been designated as attainment or unclassifiable for ozone.

(b) Randolph County has been classified as attainment, maintenance attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This grey and ductile iron foundry is one (1) of the twenty-eight (28) major PSD source categories (secondary metal production). Therefore, emissions of PM, PM_{10}, SO_2, NO_X, VOC and CO are each limited to less than one hundred (100) tons per year in order to remain a minor PSD source, pursuant to 326 IAC 2-2.

326 IAC 2-6 (Emission Reporting)

This source is located in Randolph County and the potential to emit PM_{10}, VOC, NO_X, CO and VOC is less than one hundred (100) tons per year. Therefore 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM_{10}, SO_2, VOC, CO and NO_X shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than ten (10) tons per year and the combination of all HAPs shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the following facilities shall be limited as shown in the following table:

Unit ID/ Process	**Process Weight Rate** (tons/hr)	**Allowable PM Emission Rate** (lbs/hr)	**Potential Emissions after controls** (lbs/hr)
electric induction furnace	3.35	9.22	3.02
charge handling	3.35	9.22	2.01
mold making	3.35	9.22	3.69
core making	3.35	9.22	3.69
sand handling	30.0	40.0	7.50
sand reclaimer	7.5	15.8	1.88
inoculation/magnesium treatment	3.35	9.22	6.03
pouring / casting	33.35	40.9	9.38
castings cooling	3.35	9.22	4.69
castings shakeout	3.35	9.22	0.745
cleaning / finishing	3.35	9.22	3.96

These limitations are based on the following equations:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The baghouses shall be in operation at all times the casting shakeout process, the cleaning and finishing process, the sand handling process, and the sand reclaimer are in operation, in order to comply with these limits. All other processes will comply with 326 IAC 6-3-2 even without the use of

control devices.

State Rule Applicability - Insignificant Activities

326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the grinding and machining operations shall not exceed allowable PM emission rate based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

or

If the process weight rate is less than one hundred pounds per hour, then the allowable emission rate shall be 0.551 pounds per hour.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The emergency generator, firing diesel fuel, is not subject to the emissions limitations prescribed by 326 IAC 7-1.1-1 (Sulfur Dioxide Emissions Limitations), because the generator has a potential to emit of SO_2 less than twenty-five (25) tons per year or ten (10) pounds per hour.

Testing Requirements

PM and PM_{10} testing was performed on Stacks C and F on January 19, 2000. The results of this test showed compliance for PM pursuant to 326 IAC 6-3-2, but were inconclusive for PM_{10} pursuant to 326 IAC 2-8-4.

In order to demonstrate compliance with 326 IAC 6-3-2 (Process Operations) and 326 IAC 2-8 (FESOP), stack testing for PM and PM_{10} must be performed on Stacks C, D, E and F. These stacks exhaust the emissions from the castings shakeout process, the cleaning and finishing operations, the sand handling system, and the sand reclaimer.

Using the maximum hourly throughputs of metal and sand, the AP-42 PM_{10} emission factors for shakeout, cleaning/finishing and sand handling, and the minimum required control efficiency (36.53%), a total allowable PM_{10} emission rate for the four (4) stacks of 21.22 pounds per hour was calculated. In order to demonstrate compliance with 326 IAC 2-8, the combined measured PM_{10} emission rate from Stacks C, D, E and F shall not exceed 21.22 pounds per hour.

Similarly, using the maximum hourly throughputs of metal and sand, the AP-42 PM emission factors for shakeout, cleaning/finishing and sand handling, and the minimum required control efficiency (93.05%), a total allowable PM emission rate for the four (4) stacks of 14.1 pounds per hour was calculated. In order to demonstrate that PM emissions are less than one hundred (100) tons per year (to remain a minor source pursuant to 326 IAC 2-2), the combined measured PM emission rate from Stacks C, D, E and F shall not exceed 14.1 pounds per hour.

No testing is required for the other emission units at the source because emission calculations are

based on standard AP-42 emission factors.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) The sand handling process has applicable compliance monitoring conditions as specified below:

(1) Visible emissions notations of the sand handling stack exhaust (Stack F) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(2) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the sand handling process, at least once per shift when the sand handling process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(3) An inspection shall be performed each calender quarter of all bags controlling the sand handling process when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every

three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

(4) In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this proposed permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this proposed permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the sand handling process must operate properly to ensure compliance with 326 IAC 2-8 (FESOP).

(b) The sand reclaimer has applicable compliance monitoring conditions as specified below:

(1) Visible emissions notations of the sand reclaimer stack exhaust (Stack E) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously “normal” means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(2) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the sand reclaimer, at least once per shift when the sand reclaimer is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 3.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps

in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(3) An inspection shall be performed each calender quarter of all bags controlling the sand reclaimer when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

(4) In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this proposed permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this proposed permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the sand reclaimer must operate properly to ensure compliance with 326 IAC 2-8 (FESOP).

(c) The castings shakeout process has applicable compliance monitoring conditions as specified below:

(1) Visible emissions notations of the casting shakeout stack exhausts (Stacks C and F) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously “normal” means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(2) The Permittee shall record the total static pressure drop across the baghouses used

in conjunction with the castings shakeout process, at least once per shift when the castings shakeout process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the 65,000 cfm baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, or the pressure drop across the 35,000 cfm baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(3) An inspection shall be performed each calender quarter of all bags controlling the castings shakeout process when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

(4) In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this proposed permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this proposed permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the castings shakeout process must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

(d) The cleaning and finishing operations have applicable compliance monitoring conditions as specified below:

(1) Visible emissions notations of the cleaning and finishing operations stack exhausts (Stacks C, D and E) shall be performed once per shift during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For

processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(2) The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the cleaning and finishing operations, at least once per shift when the cleaning and finishing operations are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the 65,000 cfm baghouse is outside the normal range of 0.5 and 6.0 inches of water or a range established during the latest stack test, or the pressure drop across the 2,750 cfm baghouse is outside the normal range of 1.0 and 3.0 inches of water or a range established during the latest stack test, or the pressure drop across the 5,600 cfm baghouse is outside the normal range of 0.8 and 2.5 inches of water or a range established during the latest stack test the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Failure to Take Response Steps. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(3) An inspection shall be performed each calender quarter of all bags controlling the cleaning and finishing operations when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.

(4) In the event that bag failure has been observed:

(a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this proposed permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this proposed permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouses for the cleaning and finishing operations must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this grey and ductile iron casting foundry shall be subject to the conditions of the attached proposed FESOP No.: **F 135-14182-00007.**

Appendix A: Potential Emission Calculations (Revised)
Grey Iron Foundry

Company Name: OMCO Cast Metals, Inc.
Address City IN Zip: 900 North Main Street, Winchester, Indiana 47394
FESOP: F 135-14182
Plt ID: 135-00007
Reviewer: Edward A. Longenberger
Date: March 14, 2001

Pages 1 through 6 of Appendix A revised July 23, 2002

hourly melt capacity	5.00	tons/hr
hourly sand throughput	30.00	tons/hr
annual melt limit	12,924	tons/yr
annual sand limit	144,014	tons/yr

Emission Unit **EU1**
Charge Handling

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	5.000	0.600	3.000	13.140	0.00%	3.000	13.140	3.877	12.053
PM-10	5.000	0.360	1.800	7.884	0.00%	1.800	7.884	2.326	
SO2	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	5.000	0.00230	0.012	0.050	0.00%	0.012	0.050	0.015	
chromium	5.000	0.00023	0.001	0.005	0.00%	0.001	0.005	0.001	
cobalt	5.000	0.00002	0.000	0.000	0.00%	0.000	0.000	0.000	
nickel	5.000	0.00040	0.002	0.009	0.00%	0.002	0.009	0.003	
arsenic	5.000	0.00008	0.000	0.002	0.00%	0.000	0.002	0.001	
cadmium	5.000	0.00004	0.000	0.001	0.00%	0.000	0.001	0.000	
selenium	5.000	0.00001	0.000	0.000	0.00%	0.000	0.000	0.000	

Emission Unit **EU2**
Electric Induction Furnace

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	5.000	0.900	4.500	19.710	0.00%	4.500	19.710	5.816	12.053
PM-10	5.000	0.860	4.300	18.834	0.00%	4.300	18.834	5.557	
SO2	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	5.000	0.100	0.500	2.190	0.00%	0.500	2.190	0.646	

Emission Unit **EU3 Cupola**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	N/A	13.800	0.000	0.000	0.00%	0.000	0.000	0.000	0.000
PM-10	N/A	12.400	0.000	0.000	0.00%	0.000	0.000	0.000	
SO2	N/A	1.200	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	N/A	0.100	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	N/A	0.180	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	N/A	145.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	N/A	1.100	0.000	0.000	0.00%	0.000	0.000	0.000	

Emission Unit **EU4 Inoculation/Magnesium Treatment**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	5.000	1.800	9.000	39.420	0.00%	9.000	39.420	11.632	12.053
PM-10	5.000	1.800	9.000	39.420	0.00%	9.000	39.420	11.632	
SO2	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	

Emission Unit **EU5 and EU6 Pouring and Cooling**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	5.000	4.200	21.000	91.980	0.00%	21.000	91.980	27.140	41.322
PM-10	5.000	2.060	10.300	45.114	0.00%	10.300	45.114	13.312	
SO2	5.000	0.020	0.100	0.438	0.00%	0.100	0.438	0.129	
NOx	5.000	0.010	0.050	0.219	0.00%	0.050	0.219	0.065	
VOC	5.000	0.140	0.700	3.066	0.00%	0.700	3.066	0.905	
CO	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	5.000	0.01617	0.081	0.354	0.00%	0.081	0.354	0.104	
chromium	5.000	0.00160	0.008	0.035	0.00%	0.008	0.035	0.010	
cobalt	5.000	0.00013	0.001	0.003	0.00%	0.001	0.003	0.001	
nickel	5.000	0.00281	0.014	0.062	0.00%	0.014	0.062	0.018	
arsenic	5.000	0.00055	0.003	0.012	0.00%	0.003	0.012	0.004	
cadmium	5.000	0.00025	0.001	0.005	0.00%	0.001	0.005	0.002	
selenium	5.000	0.00004	0.000	0.001	0.00%	0.000	0.001	0.000	

Emission Unit **EU7** **Castings Shakeout**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency* (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	5.000	3.200	16.000	70.080	93.05%	1.112	4.871	1.437	12.053
PM-10	5.000	2.240	11.200	49.056	36.53%	7.109	31.136	9.187	
SO2	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	5.000	1.200	6.000	26.280	0.00%	6.000	26.280	7.754	
CO	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	5.000	0.01232	0.062	0.270	0.00%	0.062	0.270	0.080	
chromium	5.000	0.00122	0.006	0.027	0.00%	0.006	0.027	0.008	
cobalt	5.000	0.00010	0.001	0.002	0.00%	0.001	0.002	0.001	
nickel	5.000	0.00214	0.011	0.047	0.00%	0.011	0.047	0.014	
arsenic	5.000	0.00042	0.002	0.009	0.00%	0.002	0.009	0.003	
cadmium	5.000	0.00019	0.001	0.004	0.00%	0.001	0.004	0.001	
selenium	5.000	0.00003	0.000	0.001	0.00%	0.000	0.001	0.000	

Emission Unit **EU8** **Cleaning/Finishing**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency* (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	5.000	17.000	85.000	372.300	93.05%	5.907	25.875	7.635	12.053
PM-10	5.000	1.700	8.500	37.230	36.53%	5.395	23.630	6.972	
SO2	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	5.000	0.00450	0.023	0.099	0.00%	0.023	0.099	0.029	
chromium	5.000	0.00646	0.032	0.141	0.00%	0.032	0.141	0.042	
cobalt	5.000	0.00051	0.003	0.011	0.00%	0.003	0.011	0.003	
nickel	5.000	0.01139	0.057	0.249	0.00%	0.057	0.249	0.074	
arsenic	5.000	0.00221	0.011	0.048	0.00%	0.011	0.048	0.014	
cadmium	5.000	0.00102	0.005	0.022	0.00%	0.005	0.022	0.007	
selenium	5.000	0.00017	0.001	0.004	0.00%	0.001	0.004	0.001	

Emission Unit **EU9** **Sand Handling**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency* (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	30.000	3.600	108.000	473.040	93.05%	7.506	32.876	18.016	40.036
PM-10	30.000	0.540	16.200	70.956	36.53%	10.282	45.036	24.680	
SO2	30.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	30.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	30.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	30.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	30.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	

Emission Unit **EU10 Moldmaking**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	5.000	1.100	5.500	24.090	0.00%	5.500	24.090	7.108	12.053
PM-10	5.000	1.100	5.500	24.090	0.00%	5.500	24.090	7.108	
SO2	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	

Emission Unit **EU11 Coremaking**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	5.000	1.100	5.500	24.090	0.00%	5.500	24.090	7.108	12.053
PM-10	5.000	1.100	5.500	24.090	0.00%	5.500	24.090	7.108	
SO2	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	5.000	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	

Emission Unit **EU12 Sand Reclaimer**

Pollutant	Maximum Throughput (tons/hr)	Emission Factor (lbs/ton)	Uncontrolled Emission Rate (lbs/hr)	Uncontrolled Emission Rate (tons/yr)	Control Efficiency* (%)	Controlled Emission Rate (lbs/hr)	Controlled Emission Rate (tons/yr)	Limited* Emission Rate (tons/yr)	Allowable Emission Rate (lbs/hr)
PM	7.500	3.600	27.000	118.260	93.05%	1.876	8.219	8.219	15.815
PM-10	7.500	0.540	4.050	17.739	36.53%	2.571	11.259	11.259	
SO2	7.500	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
NOx	7.500	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
VOC	7.500	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
CO	7.500	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	
Lead	7.500	0.000	0.000	0.000	0.00%	0.000	0.000	0.000	

Summary of Emissions

Unrestricted Potential Emissions

Significant Emission Units	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	Total HAPs (tons/yr)
Charge Handling	13.140	7.884	0.000	0.000	0.000	0.000	0.050	0.067
Electric Furnaces	19.710	18.834	0.000	0.000	0.000	0.000	2.190	2.190
Cupola	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inoc / Mag Treatment	39.420	39.420	0.000	0.000	0.000	0.000	0.000	0.000
Pouring and Cooling	91.980	45.114	0.438	0.219	3.066	0.000	0.354	0.472
Castings Shakeout	70.080	49.056	0.000	0.000	26.280	0.000	0.270	0.360
Cleaning/Finishing	372.300	37.230	0.000	0.000	0.000	0.000	0.099	0.575
Sand Handling	473.040	70.956	0.000	0.000	0.000	0.000	0.000	0.000
Moldmaking	24.090	24.090	0.000	0.000	0.000	0.000	0.000	0.000
Coremaking	24.090	24.090	0.000	0.000	0.000	0.000	0.000	0.000
Sand Reclaimer	118.260	17.739	0.000	0.000	0.000	0.000	0.000	0.000
Insig Gas	0.073	0.293	0.023	3.850	0.212	3.240	0.000	0.073
Unpaved Roads	1.060	0.370	0.000	0.000	0.000	0.000	0.000	0.000
Generator	0.138	0.138	0.128	1.940	0.157	0.418	0.000	0.000
Total	**1247**	**335**	**0.589**	**6.01**	**29.7**	**3.66**	**2.96**	**3.74**

Controlled Potential Emissions

Significant Emission Units	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	Total HAPs (tons/yr)
Charge Handling	13.140	7.884	0.000	0.000	0.000	0.000	0.050	0.067
Electric Furnaces	19.710	18.834	0.000	0.000	0.000	0.000	2.190	2.190
Cupola	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inoc / Mag Treatment	39.420	39.420	0.000	0.000	0.000	0.000	0.000	0.000
Pouring and Cooling	91.980	45.114	0.438	0.219	3.066	0.000	0.354	0.472
Castings Shakeout	4.871	31.136	0.000	0.000	26.280	0.000	0.270	0.360
Cleaning/Finishing	25.875	23.630	0.000	0.000	0.000	0.000	0.099	0.575
Sand Handling	32.876	45.036	0.000	0.000	0.000	0.000	0.000	0.000
Moldmaking	24.090	24.090	0.000	0.000	0.000	0.000	0.000	0.000
Coremaking	24.090	24.090	0.000	0.000	0.000	0.000	0.000	0.000
Sand Reclaimer	8.219	11.259	0.000	0.000	0.000	0.000	0.000	0.000
Insig Gas	0.073	0.293	0.023	3.850	0.212	3.240	0.000	0.073
Unpaved Roads	1.060	0.370	0.000	0.000	0.000	0.000	0.000	0.000
Generator	0.138	0.138	0.128	1.940	0.157	0.418	0.000	0.000
Total	**285.54**	**271.29**	**0.589**	**6.01**	**29.7**	**3.66**	**2.96**	**3.74**

Limited and Controlled Emissions

Significant Emission Units	PM (tons/yr)	PM-10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Lead (tons/yr)	Total HAPs (tons/yr)
Charge Handling	3.877	2.326	0.000	0.000	0.000	0.000	0.015	0.020
Electric Furnaces	5.816	5.557	0.000	0.000	0.000	0.000	0.646	0.646
Cupola	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Inoc / Mag Treatment	11.632	11.632	0.000	0.000	0.000	0.000	0.000	0.000
Pouring and Cooling	27.140	13.312	0.129	0.065	0.905	0.000	0.104	0.139
Castings Shakeout	1.437	9.187	0.000	0.000	7.754	0.000	0.080	0.106
Cleaning/Finishing	7.635	6.972	0.000	0.000	0.000	0.000	0.029	0.170
Sand Handling	18.016	24.680	0.000	0.000	0.000	0.000	0.000	0.000
Moldmaking	7.108	7.108	0.000	0.000	0.000	0.000	0.000	0.000
Coremaking	7.108	7.108	0.000	0.000	0.000	0.000	0.000	0.000
Sand Reclaimer	8.219	11.259	0.000	0.000	0.000	0.000	0.000	0.000
Insig Gas	0.073	0.293	0.023	3.850	0.212	3.240	0.000	0.073
Unpaved Roads	1.060	0.370	0.000	0.000	0.000	0.000	0.000	0.000
Generator	0.138	0.138	0.128	1.940	0.157	0.418	0.000	0.000
Total	**99.3**	**99.9**	**0.280**	**5.85**	**9.03**	**3.66**	**0.874**	**1.15**

METHODOLOGY

Uncontrolled Emission Rate (lbs/hr) = Throughput (tons/hr) x EF (lbs/ton)

Uncontrolled Emission Rate (tons/yr) = Throughput (tons/hr) x EF (lbs/ton) x 8760 (hrs/yr) / 2000 (lbs/ton)

Controlled Emission Rate (lbs/hr) = Throughput (tons/hr) x EF (lbs/ton) x (1-Control Eff)

Controlled Emission Rate (tons/yr) = Throughput (tons/hr) x EF (lbs/ton) x (1-Control Eff) x 8760 (hrs/yr) / 2000 (lbs/ton)

Limited Emission Rate (tons/yr) = Annual limit (tons/yr) x EF (lbs/ton) / 2000 (lbs/ton) x (1-Control Eff)

* Control efficiencies represent mininum control efficiency needed to comply with 326 IAC 2-8 and to limit PM emissions from the entire source to less than 100 tons per year in order to remain a minor PSD source pursuant to 326 IAC 2-2.

* Limited emission rates represent emissions after minimum required control, and melt and/or sand throughput limits.

Allowable Emissions represent the allowable PM emission rate pursuant to 326 IAC 6-3-2.

All emission factors taken from AP-42 Ch12 Sec10, and/or FIRES Version 6.23.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **OMCO Cast Metals, Inc.**
Address City IN Zip: **900 North Main Street, Winchester, Indiana 47394**
FESOP: **F 135-14182**
Plt ID: **135-00007**
Reviewer: **Edward A. Longenberger**
Date: **March 14, 2001**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
8.8000	77.09

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.073	0.293	0.023	3.85	0.212	3.24

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 8 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
One (1) comfort heater
HAPs Emissions

Company Name: **OMCO Cast Metals, Inc.**
Address City IN Zip: **900 North Main Street, Winchester, Indiana 47394**
FESOP: **F 135-14182**
Plt ID: **135-00007**
Reviewer: **Edward A. Longenberger**
Date: **March 14, 2001**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	8.09E-05	4.63E-05	2.89E-03	6.94E-02	1.31E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	HAPs
Potential Emission in tons/yr	1.93E-05	4.24E-05	5.40E-05	1.46E-05	8.09E-05	0.073

Methodology is the same as page 7.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emission Calculations
Internal Combustion Engines - Diesel Fuel
Turbine (>250 and <600 HP)
Reciprocating

Company Name: **OMCO Cast Metals, Inc.**
Address City IN Zip: **900 North Main Street, Winchester, Indiana 47394**
FESOP: **F 135-14182**
Plt ID: **135-00007**
Reviewer: **Edward A. Longenberger**
Date: **March 14, 2001**

Emissions calculated based on output rating (hp) **Emergency Generator**

Mechanical Output Horsepower (hp)	Potential Throughput hp-hr/yr
250.0	125000.0

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/hp-hr	0.0022	0.0022	0.00205	0.0310	0.0025	0.00668
Potential Emission in tons/yr	0.138	0.138	0.128	1.94	0.157	0.418

Methodology

Potential Througput (hp-hr/yr) = hp * 500 hr/yr for emergency generators
Emission Factors are from AP42 (Supplement B 10/96), Table 3.3-1
Emission (tons/yr) = [Potential Throughput (hp-/hr/yr) x Emission Factor (lb/hp-hr)] / (2,000 lb/ton)
*PM emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.